



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

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Mr. Ronald Kenny
Global Petroleum Corp.
140 Lee Burbank Highway
Revere, MA 02151

Date Stamped February 13, 2013
RE: **REVERE**
Metropolitan Boston/Northeast Region
310 CMR 7.02 – Air Quality Non-Major
Comprehensive Plan Application
Transmittal No. X233815
Application No. MBR-10-IND-014
CONDITIONAL APPROVAL

Dear Mr. Kenny:

The Metropolitan Boston/Northeast Regional Office of the Department of Environmental Protection, Bureau of Waste Prevention (“MassDEP”), has reviewed your Non-Major Comprehensive Plan Application (“Application”) listed above concerning your facility located at 140 Lee Burbank Highway in Revere, Massachusetts. This Application concerns the expansion of the existing gasoline loading rack, an increase in the daily and annual gasoline throughput limits, upgrading the existing vapor recovery unit (VRU), and replacing the positive displacement vapor collection system with a vacuum assist negative pressure technology (“VANPT”) collection system. Additionally, this Application includes a proposal to perform blending operations of gasoline products in five existing internal floating roof storage tanks. The Application also includes a new facility wide volatile organic compounds (VOC) emission cap of 197 tons per year, effectively exempting the facility from Best Available Retrofit Technology (BART) requirements (see Table 2 facility wide emissions limits). The submitted Application bears the seal and signature of Stephen G. Piper, Massachusetts P.E. No. 36039.

MassDEP has determined that your Application is administratively and technically complete and that the Application, specifications, and Standard Operating and Maintenance Procedures for the proposed equipment are in conformance with current air pollution control engineering practice, and hereby grants **Conditional Approval** for said Application, as submitted, subject to the conditions listed below.

Please review the entire Approval carefully, as it stipulates the particular conditions with which the Facility owner/operator must comply in order for the Facility to be operated in compliance with the Regulations. Failure to comply with this Approval will constitute a violation of the Regulations and can result in the revocation of the Approval.

1. BACKGROUND AND DESCRIPTION OF FACILITY

The Global Petroleum Corp. Revere Terminal (“the Facility”) owner/operator handles a variety of organic liquids generally categorized as gasoline, ethanol, and distillate oil products. The Facility owner/operator receives these products by ship, barge, rail, truck or pipeline and stores the products in internal floating roof and fixed roof storage tanks. Gasoline, ethanol and distillate oil products are then loaded into over-the-road tank trucks through a truck loading rack. Distillate oil products are also loaded into marine vessel cargo tanks for marine transport. The Facility owner/operator received Approval No. MBR-009-IND-017, dated June 2, 2010, for the installation and operation of a gasoline and ethanol marine loading system. Petroleum products can also be distributed from the Facility via pipelines. The primary air emissions from the Facility are volatile organic compounds (VOC) and hazardous air pollutants (HAPs), including working and breathing emissions from the Facility’s storage tanks, emissions from storage tank degassing activities associated with tank cleanings, emissions from floating roof tank landings associated with product changes, and emissions from tank truck and marine vessel cargo tank loading operations.

The Facility is categorized as a major source of air pollution with potential VOC emissions greater than fifty (50) tons per year. The Facility is categorized as a minor (area) source of HAPs with allowable emissions (Modified Conditional Approval No. MBR-99-IND-006, dated September 6, 2006) of less than or equal to nine (9) tons per year of any individual HAP or twenty four (24) tons per year of combined HAPs. However, the Facility is currently still subject to Federal Regulation 40 CFR Part 63, Subpart R for HAPs emissions due to the United States Environmental Protection Agency (EPA) current “Once In, Always In Policy.”

The air emissions generated during loading of tank trucks with various organic liquids are controlled by a vapor collection and control system. The Facility owner/operator currently collects vapors with a positive pressure system. Under this system, vapors in the headspace of the tank truck are displaced through a vapor connection hose into a collection header to a VRU by the act of bottom filling the tank truck with organic liquids. The VRU consists of two vessels containing activated carbon beds which adsorb organic vapors. During tank truck bottom loading operations, one carbon bed is adsorbing organic vapors, while the second carbon bed that was previously receiving organic vapors is being desorbed and regenerated under vacuum pressure. These vapors are then condensed into liquids, and pumped into a storage tank for reuse. The current VRU has a guaranteed emission rate of ten (10) milligrams of VOC per liter of gasoline loaded, as stipulated in Federal Regulation 40 CFR Part 63, Subpart R for bulk terminals. The EPA has published an emission factor for fugitives of eight (8) milligrams of VOC per liter of organic liquid loaded into tank trucks under a positive pressure system¹.

In order for the Facility owner/operator to undertake the proposed throughput increases, the Facility owner/operator is required to upgrade the existing loading rack to a negative, or vacuum, pressure vapor collection system and to upgrade the existing VRU such that it is capable of meeting a guaranteed emission limitation of two (2) milligrams of VOC per liter of gasoline loaded. This

¹ Gasoline Distribution Industry (Stage 1) – Background Information for Promulgated Standards, EPA-453/R-94-002b, November 1994.

emission limitation represents current Best Available Control Technology (BACT) under MassDEP's Regulation 310 CMR 7.02. The vacuum assist negative pressure system, or VANPT, will include a blower that will pull the organic vapors from the tank truck to the VRU via a vapor connection hose and collection header, thus eliminating the fugitive emissions associated with loading of tank trucks under a positive pressure system.

The Facility owner/operator's loading rack contains one (1) existing VRU, consisting of two (2) carbon beds, as described above. Under this Application, the Facility owner/operator proposes to retrofit the loading rack with VANPT on eleven (11) loading bays and to install a booster blower retrofit package on the existing VRU so that it will meet the current BACT emission rate.

During the interim period while the new VANPT system and booster blower retrofit package are being installed, the Facility owner/operator proposes to utilize a temporary (trailer-mounted) vapor combustion unit in order to control VOC emissions from all loading bays currently connected to the existing VRU and to allow continued operation of the terminal. As stated above, the existing VRU is permitted to operate with a maximum emission rate of ten (10) milligrams of VOC per liter of organic liquid loaded.

In addition, the Facility owner/operator currently operates under Conditional Approval MBR-99-IND-006 dated April 30, 1999 (subsequently modified August 16, 2006) and Final Operating Permit MBR-95-OPP-019 issued to you on December 16, 2004. Once the new VANPT and upgraded VRU have been installed, commenced operation and satisfactorily demonstrated compliance with this Conditional Approval, Conditional Approval MBR-99-IND-006 will be superseded in its entirety. At that point in time, the old positive pressure Air Pollution Control System will, in effect, cease to exist and the new VANPT and upgraded VRU will be the sole Air Pollution Control System employed at the Facility.

2. EMISSION UNIT IDENTIFICATION/REQUIREMENTS

The following emission unit is subject to and regulated by this Approval:

Table 1			
EMISSION UNIT (EU) NUMBER	DESCRIPTION OF EMISSION UNIT	EU DESIGN CAPACITY	POLLUTION CONTROL DEVICE (PCD)
P2-1	<u>Loading Rack with VANPT:</u> 11 bottom loading bays with a total of 20 loading arms	Maximum organic liquid flow rate of 10,800 gallons loaded per minute from bottom loading bays	PCD2 - Vapor Recovery Unit (VRU) with Booster Blower, including Regenerative Activated Carbon Bed Adsorption System (ACBAS) with Vacuum Assist Negative Pressure Technology (VANPT) John Zink Model AAT-825-11-9-10-2-X with Booster Blower MD9020 (or equivalent)

Table 1			
EMISSION UNIT (EU) NUMBER	DESCRIPTION OF EMISSION UNIT	EU DESIGN CAPACITY	POLLUTION CONTROL DEVICE (PCD)
R4-17	Above ground internal floating roof petroleum storage tank, bolted sheet roof, leg supported when landed	REVCO Tank 17 5,174,022 gallons, 140.0 feet (ft) diameter	Internal floating roof, liquid mounted primary rim seal, rim mounted secondary seal
R4-20	Above ground internal floating roof petroleum storage tank, bolted sheet roof, leg supported when landed	REVCO Tank 20 6,001,548 gallons, 150.0 ft diameter	Internal floating roof, liquid mounted primary rim seal, rim mounted secondary seal
S4-32	Above ground internal floating roof petroleum storage tank, Bolted sheet roof, leg supported when landed	South Tank 32 2,199,000 gallons, 97.0 ft diameter	Internal floating roof, vapor mounted primary rim seal, rim mounted secondary seal
S4-34	Above ground internal floating roof petroleum storage tank, bolted sheet roof, leg supported when landed	South Tank 34 2,296,000 gallons, 97.0 ft diameter	Internal floating roof, vapor mounted primary rim seal, rim mounted secondary seal
S4-39	Above ground internal floating roof petroleum storage tank, bolted sheet roof, leg supported when landed	South Tank 39 3,148,000 gallons, 117.0 ft diameter	Internal floating roof, vapor mounted primary rim seal, rim mounted secondary seal

EU P2-1 shall be comprised of that portion of the loading rack with VANPT, which includes Bays 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, and 11. Tank trucks loading in said bays shall only be loaded from the bottom (bottom loading). The Facility owner/operator shall insure that tank trucks previously containing gasoline and returning to the Facility to load distillate fuel products (switch loading) shall only do so in bays with VANPT. There shall be no loading of gasoline or switch loading in Bays 12, 13, 14, 15, 16 and 17, which shall be designated for loading of tank trucks from the top (top loading) only.

The entire loading rack at the Facility shall be configured as follows:

Table 1A				
Bay Number	Connection to VANPT	Tank Truck Loading Configuration	Number of Arms	Product Loaded
1	YES	BOTTOM	2	GAS
2	YES	BOTTOM	2	GAS
3	YES	BOTTOM	2	GAS
4	YES	BOTTOM	2	GAS
5	YES	BOTTOM	2	GAS
6	YES	BOTTOM	2	DIST
7	YES	BOTTOM	2	DIST
8	YES	BOTTOM	1	DIST
9	YES	BOTTOM	2	DIST
10	YES	BOTTOM	2	DIST
11	YES	BOTTOM	1	DIST
12	NO	TOP	2	DIST
13	NO	TOP	2	DIST

Table 1A				
Bay Number	Connection to VANPT	Tank Truck Loading Configuration	Number of Arms	Product Loaded
14	NO	TOP	2	DIST
15	NO	TOP	2	DIST
16	NO	TOP	2	DIST
17	NO	TOP	2	DIST

The loaded products fall into two categories: 1) DIST (distillate products) - organic materials having a vapor pressure of less than 1.5 pounds per square inch absolute and, 2) GAS (ethanol and gasoline products with additives) - organic materials having vapor pressure of 1.5 pounds per square inch absolute or greater except that ethanol, which has a vapor pressure of less than 1.5 pounds per square inch absolute, shall be included in this category.

Bays with VANPT (Bays 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, and 11) shall manage product flow such that the combined product flow rates do not exceed the VRU designed capacity of 10,800 gallons per minute as stated in Table 1.

After modifications to the VRU are complete, to ensure that the unit does not receive vapors at a rate above capacity, the Facility owner/operator shall monitor the pressure in each Bay's vapor line to ensure that the vacuum pressure meets the level specified in Table 2. Additionally, the VRU shall be equipped with shutdown fault conditions that will sense a possibility that the system is failing to operate at the design capacity (valve failures, vacuum pump failures, high temperatures, absorbent flow failure, and/or high pressures). Lastly, the Facility owner/operator shall monitor the VOC outlet concentration to assure conformance with the emission limitation in Table 2 below.

Electronic interlocks for each of the loading bays, and visible and audible alarms in the Facility's control room, shall continue to be maintained and operated to prevent loading of any tank truck if the vapor recovery hose is not connected properly or whenever either the minimum required vacuum pressure at the tank truck/VANPT interface or the new VRU's maximum VOC emission limit is reached and/or exceeded. See Table 3, Numbers 2 and 3 below.

The blending operations proposed for REVCO Tanks 17 and 20 and South Tanks 32, 34, and 39 will allow the owner/operator to combine non saleable gasoline products with necessary components to meet specifications for saleable gasoline products. The blending will be done by combining the products through the filling process alone, no mechanical agitation or air sparging will be used. Potential emissions from the five blend tanks are higher because the Reid Vapor Pressure (RVP) of the products may be higher than that of saleable products.

3. APPLICABLE REQUIREMENTS

A. EMISSION LIMITS AND RESTRICTIONS

The Facility owner/operator shall comply with the requirements contained in Table 2 below:

Table 2				
EU#	RESTRICTION/ OPERATING PRACTICES	POLLUTANT	EMISSION LIMIT/STANDARD	APPLICABLE REGULATION AND/OR APPROVAL NUMBER
P2-1	<u>Gasoline Throughput Limit:</u> ≤ 4.5 million gallons per day ≤ 750 million gallons per 12-month rolling period	VOC	≤ 2 mg per liter of gasoline loaded over a one-hour period for PCD2	310 CMR 7.02
			<i>CEMS Correlation Factor</i> (Refer to Special Terms and Conditions, Section 4.b, and Table 5, Item 4)	
			≤ 6.3 tons per 12-month rolling period	
	<u>Vacuum Pressure at Loading</u> <u>Tank Truck:</u> ≤ -3 inches of H ₂ O (or other value as approved by MassDEP), 15-minute rolling average, (or other value as approved by MassDEP)	Individual HAP ⁽¹⁾	≤0.04 tons per month ≤ 0.08 tons per 12-month rolling period	
	Combined HAPs	≤0.15 tons per month ≤ 0.3 tons per 12-month rolling period		
R4-17, R4-20, S4-32, S4-34, S4-39	<u>Total Gasoline Throughput Limit:</u> ≤ 188 million gallons per month ≤ 375 million gallons per 12-month rolling period	VOC	≤21.9 tons per month ≤ 43.8 tons per 12-month rolling period	310 CMR 7.02 310 CMR 7.24
		Individual HAP	≤0.9 tons per month ≤ 1.8 tons per 12-month rolling period	
		Combined HAPs	≤1.4 tons per month ≤ 2.8 tons per 12-month rolling period	
		VOC	Concentration of VOC in the vapor space above the internal floating roof shall not exceed 50 % LEL ⁽²⁾	MBR-10-IND-014
Facility - Wide	Facility – Wide emissions include potential emissions from existing petroleum storage tanks, Marine loading, and fugitive emissions that are not the focus of this Approval	VOC	≤96.0 tons per month ≤ 197.0 tons per 12-month rolling period	310 CMR 7.02 310 CMR 7.24
		Individual HAP	≤ 4.5 tons per month ≤ 9.0 tons per 12-month rolling period	
		Combined HAPs	≤ 12.0 tons per month ≤ 24.0 tons per 12-month rolling period	

Table 2 Notes:

- (1) Individual HAP and combined HAPs emissions determined utilizing the emission factors and calculation procedures submitted as part of this Application. (See Special Terms and Conditions, Section 4.k).
- (2) Lower explosive limit (LEL) measured in accordance with EPA Method 21, as identified in 40 CFR Part 60, Appendix A, or another method approved by MassDEP.

Table 2 Key:

EU# = Emission Unit Number

Gasoline = Organic material having a vapor pressure of 1.5 pounds per square inch absolute or greater except that ethanol, which has a vapor pressure of less than 1.5 pounds per square inch absolute, shall be included

VOC = Volatile Organic Compounds

HAP = Hazardous Air Pollutant

H₂O = Water Column

mg = milligrams

- = negative

≤ = less than or equal to

B. COMPLIANCE DEMONSTRATION

The Facility owner/operator shall comply with the monitoring/testing, record keeping, and reporting requirements as contained in Tables 3, 4, and 5 below:

Table 3	
EU#	MONITORING/TESTING REQUIREMENTS
P2-1	1. Monitor the volume of gasoline loaded into each tank truck in gallons utilizing volumetric flow meters.
	2. Monitor the pressure in the vapor recovery line connected to each tank truck utilizing continuous pressure monitoring systems such that compliance with a target vacuum negative pressure of 3 inches (or other value as approved by MassDEP) water column, instantaneous and 15-minute rolling average (or other value as approved by MassDEP), is maintained during loading of the tank truck. Electronic interlocks for each of the loading bays, and visible and audible alarms in the Facility's control room, shall be installed and operated to prevent loading of the tank truck if the vapor recovery hose is not connected properly or whenever the VANPT's required tank truck vacuum pressure as specified in Table 2 is not maintained, or if a vacuum of less than 0.5 inches of H ₂ O for 60 seconds is detected. Monitor pressures at each loading bay for a minimum of ninety five (95) percent of the actual loading operating time per calendar quarter.
	3. Monitor the VOC outlet emissions (in percent VOC or parts per million (ppm) measured as propane) from the VRU stack continuously utilizing continuous emissions monitoring systems (CEMS). Electronic interlocks, and visible and audible alarms in the yard and the Facility's control room, shall be installed and operated to prevent the loading of any tank truck whenever the required VRU hourly outlet VOC emission limit as specified in Table 2 is not maintained. Monitor VOC outlet emissions from the VRU stack for a minimum of ninety five (95) percent of the VRU operating time per calendar quarter.
	4. Monitor the VRU operating time electronically.
	5. Calculate emissions of individual HAP and combined HAPs for each month. Calculate emissions of VOC, individual HAP, and combined HAPs for each 12-month rolling period.
	6. Conduct an emissions compliance test at representative conditions within ninety (90) days after commencement of operation of the VRU upgrade. Thereafter, the Facility owner/operator shall conduct compliance tests when required by MassDEP. All compliance testing or other testing related to MassDEP approval and establishment of emission limits or terms contained in a Final Approval shall be conducted in accordance with 310 CMR 7.13.
	7. Operate and maintain the loading rack and its associated equipment including the VRU's ACBAS, VANPT, and CEMS in accordance with the manufacturers' recommendations and Standard Operating and Maintenance Procedures (SOMP). The VOC outlet CEMS shall comply with the applicable procedures for CEMS as stated in 40 CFR 60, Appendices B and F, or other procedures as approved by MassDEP.

Table 3	
EU#	MONITORING/TESTING REQUIREMENTS
R4-17, R4-20, S4-32, S4-34, S4-39	9. On a monthly basis, perform a visual inspection of the floating roof through roof hatches and manways in the fixed roof. To the extent possible, the visual inspection shall include, but not be limited to: <ul style="list-style-type: none"> i. Sunken roof, collapsed or unsealed roof legs; ii. Liquid accumulated on top of floating roof; iii. Covers, lids, seals, or vacuum breakers not closed; iv. Holes, tears, or other openings through the rim seal; v. Visible gaps between the seal and the tank shell; vi. Gaps or other observable problems with deck fitting covers, gaskets, or equipment, such as guidepole wipers, sleeves, floats or flexible enclosures, if so equipped; vii. Inspect the periphery of the tank shell, piping, pumps, and other components that contain organic product associated with the tank for possible leaks.
	10. Semi-annually, in addition to the monthly requirements above, measure the organic vapor concentration in the vapor space above the floating roof in terms of the lower explosive limit (LEL) in order to demonstrate compliance with the requirements in Table 2 above.
	11. Monitor the average monthly storage temperature; the true vapor pressure, monthly throughput and type of organic material stored.
	12. Monitor and calculate emissions of individual VOC, HAP and combined HAPs for each month. Calculate emissions of VOC, individual HAP, and combined HAPs for each 12-month rolling period.
Facility – Wide	13. Calculate emissions of VOC, individual HAP and combined HAPs for each month and each 12-month rolling period.

Table 4	
EU#	RECORD KEEPING REQUIREMENTS
P2-1	1. Record the volume of gasoline loaded into tank trucks in gallons per day and gallons per 12-month rolling period.
	2. Install and operate a data acquisition and handling system (DAHS) to record the instantaneous and 15-minute rolling average (or other value as approved by MassDEP) pressures, in inches of H ₂ O as well as instances where the interlock system prevented loading due to vapor hose connectivity problems at each loading bay during loading of each tank truck. These records shall be maintained on a computer in the Facility's control room or other readily accessible location.
	3. Install and operate a DAHS to record one-hour average VRU outlet VOC emissions (in percent VOC or ppm measured as propane). These records of VOC emissions shall be maintained on a computer in the Facility's control room or other readily accessible location.
	4. Record, per calendar quarter: a) VRU operating time; b) data capture percentages for the continuous pressure monitoring systems and outlet VOC CEMS; and, c) time periods of noncompliance with the tank truck vacuum pressure and the VRU outlet VOC concentration limits as contained in Table 2, including reason for noncompliance, corrective action taken, and action being taken to prevent re-occurrence in the future.
	5. Record emissions of individual HAP and combined HAPs in tons per month. Record emissions of VOC, individual HAP, and combined HAPs in tons per 12-month rolling period. Said records shall be maintained in a record keeping log or equivalent.
	6. Maintain records of all malfunctions of emissions control and monitoring equipment including, at minimum: the date and time the malfunction occurred; a description of the malfunction and the corrective actions taken; the date and time corrective actions were initiated; and the date and time corrective actions were completed and the equipment was returned to compliance.

Table 4	
EU#	RECORD KEEPING REQUIREMENTS
P2-1	7. Maintain records of emissions compliance test results or other test results related to MassDEP approval and establishment of emission limits or terms contained in a Final Approval and any reports containing said test results. See Special Terms and Conditions, Section 4.c).
	8. Maintain on-site and accessible at or near the subject equipment, at all times, a copy of this Approval letter and the SOMP for the subject equipment.
	9. Maintain records of all maintenance performed, including description and date/time work was completed, on the loading rack and its associated equipment including the VRU's ACBAS, VANPT, CEMS, and DAHS.
R4-17, R4-20, S4-32, S4-34, S4-39	10. Maintain and keep onsite for a minimum of five years a record of the average monthly storage temperature; the true vapor pressure, monthly throughput, type of organic material stored, monthly and twelve month rolling VOC and individual HAP and combined HAPs emissions, the results of any inspections or tests conducted, modifications or repairs done, and any reports or notifications submitted to MassDEP or EPA in accordance with applicable Regulations or requirements.
Facility - Wide	11. Record emissions of individual HAP and combined HAPs in tons per month and tons per 12-month rolling period. Said records shall be maintained in a record keeping log or equivalent.
	12. Maintain records for the preparation of a Source Registration/Emission Statement Form as required by 310 CMR 7.12.
	13. Maintain all records or reports required by this Approval on-site for five (5) years and make said records or reports available to MassDEP personnel upon request.

Table 5	
EU#	REPORTING REQUIREMENTS
P2-1	1. Report deviations from the requirements of this Approval in accordance with the Facility's Operating Permit and 310 CMR 7.00: Appendix C.
	2. Submit revisions to the plans and specifications provided in the Application for the VRU's ACBAS, VANPT, and CEMS to MassDEP once the specific information has been determined but in any case not later than thirty (30) days prior to commencement of operation of the upgraded VRU.
	3. Submit a quality control/quality assurance (QA/QC) program, for review and MassDEP approval, for the operation of the CEMS serving the Facility no later than thirty (30) days prior to commencement of operation of the upgraded VRU.
	4. At least thirty (30) days prior to commencement of operation of the upgraded VRU, submit for MassDEP review and approval, a preliminary protocol for operation of the upgraded VRU that includes a correlation of the VRU outlet VOC concentrations (in percent VOC or ppm measured as propane, one-hour average) as measured by the CEMS or other methodology approved by MassDEP that ensures continuous compliance with the VOC emission limit/standard of 2 milligrams per liter of gasoline loaded over a one-hour period (<i>CEMS Correlation Factor</i>).
	5. Submit for any required emissions compliance testing or other testing related to MassDEP approval and establishment of emission limits or terms contained in a Final Approval: a) a written test protocol, for review and MassDEP approval, at least thirty (30) days prior to the anticipated date of testing, and b) include in the test protocol, at minimum, a description of sampling point locations, sampling equipment, sampling and analytical procedures, and the operating conditions for the testing, and c) submit a test results report, for review and MassDEP approval, within sixty (60) days after completion of the testing.
	6. Should the SOMP provided in the Application need revision, submit an updated SOMP to MassDEP no later than sixty (60) days after MassDEP's approval of the emissions compliance test results report. Thereafter, submit updated versions of the SOMP no later than thirty (30) days prior to occurrence of a significant change. The updated SOMP shall supersede prior versions of the SOMP.

Table 5	
EU#	REPORTING REQUIREMENTS
Facility - Wide	7. Accurately report to MassDEP, in accordance with 310 CMR 7.12, all information as required by the Source Registration/Emission Statement Form.

4. SPECIAL TERMS AND CONDITIONS

The Facility owner/operator is subject to, and shall comply with, the following special terms and conditions:

- a) The Facility owner/operator shall install and/or operate an exhaust stack on the emission unit listed in Table 6 that is consistent with good air pollution control engineering practice and that discharges vertically so as to not cause or contribute to a condition of air pollution. The exhaust stack shall not be equipped with any part or device that restricts the vertical exhaust flow of the emitted gases.

Table 6				
EU#	Stack Height Above Ground, feet	Stack Exit Size, inches	Maximum Exhaust Gas Exit Velocity, feet per second	Outside Stack Shell Material
P2-1	27	10	27	Carbon Steel

- b) The Facility owner/operator shall review all available data and propose for incorporation in the Final Approval a *CEMS Correlation Factor* to limit the VOC concentration (in percent VOC or ppm measured as propane, one-hour average) at the VRU exhaust stack based upon collection of sufficient VOC concentration data (in percent VOC or ppm measured as propane, one-hour average) by the CEM at the VRU outlet, compliance testing results, or any other testing as approved by MassDEP. The term may be an emission limit, algorithm that correlates VRU outlet VOC concentration to VRU inlet VOC concentration, or other provision that ensures continuous compliance with the VOC emission limit/standard of 2 milligrams per liter of gasoline loaded over a one-hour period.

- c) The Facility owner/operator shall maintain an adequate supply of spare parts on-site for all air pollution control-related equipment and to maintain the on-line availability and data capture requirements for the continuous pressure and VOC emission monitoring systems serving the new VRU and VANPT.

- d) Tank Cleaning – The Facility owner/operator shall utilize an air pollution control device(s) having an overall minimum control efficiency of 98 percent by weight to control the VOC and HAPs vapor emissions from storage tank degassing activities associated with tank degassing, cleaning and sludge removal, including vacuum truck emissions, down to 5,000 parts per million (ppm). In conducting any such degassing activities, the Facility owner/operator shall not open the interior vapor space of a tank to the atmosphere through a hatch or manway, except for the limited

time necessary to connect or disconnect degassing equipment or to conduct tank contents or emissions sampling or to facilitate removal of gasoline vapor from the tank to the control device. Notwithstanding the terms of this Paragraph, the Facility owner/operator shall not be precluded from introducing liquids to or removing liquids from the tank. The Facility owner/operator shall notify MassDEP by electronic mail, as soon as practicable, but no later than one (1) business day prior to any such gasoline storage tank degassing activity. The Facility owner/operator shall subsequently submit a written report to MassDEP summarizing the degassing activity, including quantification or estimation of VOC and HAPs emissions, the reason for the degassing activity, the air pollution control device used, as well as its overall VOC and HAPs control efficiency, and the name of any contractor used to control said emissions, within fifteen (15) days of the conclusion of the degassing activity. To quantify or estimate the VOC and HAPs emissions, the Facility owner/operator shall use the American Petroleum Institute calculation techniques contained in "Evaporative Loss from the Cleaning of Storage Tanks", Technical Report 2568, dated November 2007, or other calculation techniques agreed to in writing by MassDEP and the Facility owner/operator. If the Facility owner/operator determines that there is an imminent risk of explosion if the tank is not immediately degassed, the Facility owner/operator shall not be required to provide the advance notice or use the air pollution control device described in this Paragraph. However, after the imminent risk of explosion has been alleviated, any further degassing activity shall comply with this Paragraph. Further, in such a situation, notice of the degassing activity and a written explanation of the imminent risk of explosion that occurred, its cause(s), the need for immediate degassing, the steps taken to minimize VOC and HAPs emissions, and a quantification of the resulting VOC and HAPs emissions, shall be provided to MassDEP as soon as practicable, but no later than two (2) business days after the imminent risk of explosion has been alleviated.

e) Seasonal Fuel Switching/Tank Landings - During seasonal fuel switching or any other roof landing event that does not trigger the requirements of Paragraph d) above, where such seasonal fuel switching or other roof landing event would cause the potential emission of VOC and/or HAPs from the storage tank exceeding one (1) ton, as calculated using the emission estimation procedures found in Section 7.1-Organic Liquid Storage Tanks of EPA's most recently published compilation of air pollutant emission factors (AP-42), or other calculation techniques agreed to in writing by MassDEP and the Facility, the Facility owner/operator shall utilize an air pollution control device(s) having an overall minimum control efficiency of 98 percent by weight to control the VOC and HAPs vapor emissions from the storage tank. In conducting any such seasonal switching or roof landing event, the Facility owner/operator shall not open the interior vapor space of a tank to the atmosphere through a hatch or manway, except for the limited time necessary to connect or disconnect degassing equipment or to conduct tank contents or emissions sampling or to facilitate vapor removal from the tank.

f) The requirements in Special Terms and Conditions, Section 4.d) and Section 4.e) above shall be superseded by the requirements of Regulation 310 CMR 7.24, if/when it is revised.

a) Vapor and Liquid Leak Detection – The Facility owner/operator shall initiate repair of any liquid or vapor leak, regardless of the method of detection, as soon as practicable, but no later than one (1) day after the leak is detected. The Facility owner/operator shall complete repair of the leak

or replacement of the leaking component as soon as practicable within five (5) days of detection of the leak, unless MassDEP has agreed to an extension of the five (5) day repair time period.

Detection of liquid or vapors leaking from a gasoline tank truck shall result in terminating active loading and notifying the truck driver of the observed leak. The leaking truck shall be prevented from loading at the Facility until such time as the tank truck has been repaired and re-certified as meeting the annual leak certification criteria under 310 CMR 7.24. In addition, within one (1) business day of identifying a leaking tank truck, the Facility owner/operator shall provide written notification to MassDEP, by electronic mail, of the leaking tank truck. Said notification shall include the tank identification number, the owner or operator of the tank truck, and the nature of the leak.

- a) Tank trucks loading in Bays 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, and 11 shall only be loaded from the bottom (bottom loading). The Facility owner/operator shall insure that tank trucks previously containing gasoline and returning to the Facility to load distillate fuel products (switch loading) shall only do so in bays with VANPT. There shall be no loading of gasoline or switch loading in Bays 12, 13, 14, 15, 16 and 17 which shall be designated for loading of tank trucks from the top (top loading) only.
- b) The Facility owner/operator shall submit the emission factors and calculation procedures used to determine the HAPs emission limits in Table 2 to MassDEP within thirty (30) days after issuance of this Conditional Approval.
- c) The Facility owner/operator shall be exempt from the Best Available Retrofit Technology (BART) requirements as a result of the facility wide VOC emission limits specified in Table 2 that cap those emissions below 250 tons per year.

5. GENERAL CONDITIONS

The Facility owner/operator is subject to, and shall comply with, the following general conditions:

- a) Should any nuisance condition(s), including but not limited to smoke, dust, odor or noise, occur, as the result of the operation of the Facility, then the Facility owner/operator shall immediately take appropriate steps to abate said nuisance condition(s).
- b) The Facility owner/operator shall allow MassDEP personnel access to the site, buildings, and all pertinent records at all reasonable times for the purpose of making inspections and surveys, collecting samples, obtaining data, and reviewing records.
- c) This Approval consists of the Application materials and this Approval letter. If conflicting information is found between these two documents, then the requirements of the Approval letter shall take precedence over the documentation in the Application materials.

- d) This Approval does not negate the responsibility of the Facility owner/operator to comply with this or any other applicable federal, state, or local regulations now or in the future. Nor does this Approval imply compliance with this or any other applicable federal, state, or local regulations now or in the future.
- e) This Approval may be suspended, modified, or revoked by MassDEP if, at any time, MassDEP determines that the Facility owner/operator is violating any condition or part of this Approval.
- f) If asbestos remediation/removal should be required as a result of the approved construction, reconstruction, or alteration of this Facility, removal/remediation of asbestos shall be done in accordance with Regulation 310 CMR 7.15 in its entirety and 310 CMR 4.00.
- g) MassDEP has determined that the filing of an Environmental Notification Form (ENF) with the Secretary of Energy & Environmental Affairs, for air quality control purposes, was not required prior to this action by MassDEP. Notwithstanding this determination, the Massachusetts Environmental Policy Act (MEPA) and Regulation 301 CMR 11.00, Section 11.04, provide certain "Fail-Safe Provisions" which allow the Secretary to require the filing of an ENF and/or an Environmental Impact Report (EIR) at a later time.
- h) Failure to comply with any of the above stated conditions will constitute a violation of the "Regulations", and can result in the revocation of the Approval granted herein and/or other appropriate enforcement action as provided by law. MassDEP may also revoke this Approval if the construction work is not begun within two years from the date of issuance of this Approval, or if the construction work is suspended for one year or more.

6. APPEAL PROCESS

This Approval is an action of MassDEP. If you are aggrieved by this action, you may request an adjudicatory hearing. A request for a hearing must be made in writing and postmarked within twenty-one (21) days of the date you received this Approval.

Under 310 CMR 1.01(6)(b), the request must state clearly and concisely the facts, which are the grounds for the request, and the relief sought. Additionally, the request must state why the Approval is not consistent with applicable laws and regulations.

The hearing request along with a valid check payable to the Commonwealth of Massachusetts in the amount of one hundred dollars (\$100.00) must be mailed to:

Commonwealth of Massachusetts
Department of Environmental Protection (MassDEP)
P.O. Box 4062
Boston, MA 02211

This request will be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver as described below. The filing fee is not required if the appellant is a city or town (or municipal agency), county, or district of the Commonwealth of Massachusetts, or a municipal housing authority.

MassDEP may waive the adjudicatory hearing-filing fee for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file, together with the hearing request as provided above, an affidavit setting forth the facts believed to support the claim of undue financial hardship.

Should you have any questions concerning this Approval, please contact Thomas Hannah by telephone at (978) 694-3287, or in writing at the following address: Department of Environmental Protection, 205B Lowell Street, Wilmington, Massachusetts 01887.

Sincerely,

This final document copy is being provided to you electronically by the
Department of Environmental Protection. A signed copy of this document
is on file at the DEP office listed on the letterhead.

Thomas Hannah
Environmental Engineer

James E. Belsky
Permit Chief
Bureau of Waste Prevention

Cc: Board of Health, 249R, Broadway, Revere, MA 02151
Fire Headquarters, Broadway, Revere, MA 02151
MassDEP/Boston - Yi. Tian (E-Copy)
MassDEP/NERO Marc Altobelli (E-Copy & Hard Copy), Mary Persky, Cosmo Buttaro, Ed Braczyk,
Joe Su, Tom Hannah